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PA - (MEID) MEIDENSHA CORP

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XIC - F16J-015/16 ; F16J-015/34 ; F27B-007/24

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AB - JP2001133157 NOVELTY - A supply side duct (9) and a discharge side duct (10) are fixed, respectively to cover a supply port (6) and a discharge port (7) formed at the ends of a cylindrical rotation drum (2). A mechanical seal (16) formed with a wear resistant substance coated contact surface which slidably contacts the rotation drum, is provided between the rotation drum and each of the two supply side and discharge side ducts.

- DETAILED DESCRIPTION - The mechanical seal is formed double structured with two sealing elements (16A,16B) between which a sealing gas chamber (16f) is formed. The sliding contact surface of the mechanical seal is coated with wear resistance substance by PTFE process, graphite process or for carbon fiber containing PTFE process. A regulating valve (17b) of an inert gas supply control system (17) maintaining the pressure in the sealing gas chamber higher than the pressure inside the rotation drum. An emergency valve (17c) operates when the internal pressure of the drum is abnormal and prevents the gas leakage from the sealing gas chamber. The waste being processed in the rotation drum is heated by a heater (12) and a heating jacket (3) through the rotation drum. The rotation drum transfers the waste from the supply port side to the discharge port side.
- USE - For heat treatment of industrial and general wastes.
- ADVANTAGE - Prevents the generated gas leakage externally during heat processing, by providing the sealing gas chamber in which the pressure is maintained above the internal pressure of the drum and providing the emergency valve which operates when the drum internal pressure becomes abnormal. Coats sliding contact surface of the mechanical seal by PTFE process, graphite process or for carbon fiber containing PTFE process, thereby obtains the mechanical seal which can slide smoothly.
- DESCRIPTION OF DRAWING(S) - The figures show the conceptual diagram of the heat treatment equipment and principal part sectional view the mechanical seal.
- Cylindrical rotation drum 2
- Supply port 6
- Discharge port 7
- Supply side duct 9
- Discharge side duct 10
- Heater 12
- Mechanical seal 16
- Sealing elements 16A,16B

- Sealing gas chamber 16f
- Inert gas supply control system 17
- Regulating valve 17b
- Emergency valve 17c
- (Dwg.1/1)

**IW - INDUSTRIAL GENERAL WASTE HEAT TREAT EQUIPMENT MECHANICAL SEAL SURFACE
FORM SLIDE CONTACT ROTATING DRUM COATING WEAR RESISTANCE SUBSTANCE
DRUM DUCT**

**IKW - INDUSTRIAL GENERAL WASTE HEAT TREAT EQUIPMENT MECHANICAL SEAL SURFACE
FORM SLIDE CONTACT ROTATING DRUM COATING WEAR RESISTANCE SUBSTANCE
DRUM DUCT**

NC - 001

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**TI - Industrial and general waste heat treating equipment has mechanical
seals with surfaces which form sliding contact with rotation drum
coated with wear resistant substance and provided between drum and
each duct**